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# Medical Times

**The Journal of the American Medical Profession**

Fowler at the Brooklyn Hospital

Applied Laboratory Fundamentals

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**Medical Book News** **Editorials**

**Contemporary Progress**

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# EDITORIALS

### *Medical Shock Troops Wheel Into Action on the Home Front*

An extremely militant organization of physicians has been centered for the time being at Gary, Indiana. It has been incorporated by the Lake County Medical Society, or at least by members thereof. One of its aims is to move from the defensive to the offensive in the work toward the actual solution of problems in medical economics and to keep the economics of medicine under the management and control of the practitioners of medicine. Another aim is to organize all ethical physicians and surgeons of the United States and its possessions in an Association so established that its members may determine and enforce the conditions under which they will or will not give their services. It expects to establish a Washington office for the execution of prompt and effective legislative action by the profession. The first issue of its organ, *News of the Association of American Physicians and Surgeons*, has just reached us.

While we are tired of being on the defensive against the proponents of left-wing political medicine there are some things in the manifesto appearing in this first news issue that perturb us a bit as to their soundness. Here we quote:

> Members of this Association who might be tempted to participate in schemes for the distribution of medical care considered inimical to the public welfare will be expelled.
>
> Non-members, on the other hand, may go their way without interference from members. This Association may not lawfully make any attempt to prevent non-members or allied institutions from participation in such plans. The Association and its branches must and will studiously avoid attempts of coercion of non-members or conduct designed to injure them. This Association will not, as did the American Medical Association (as determined by the courts in the case of Group Health, Inc.), attempt to injure or destroy anyone or anything.
>
> However, in order to sustain and support the fundamental principles deemed vital to the purposes of the Association, members will refuse to associate with non-members when more than 75% of the eligible physicians in any community become members. Members will not refer patients to non-members, will not consult with them; serve on the staff of the same hospital, clinic or other institution with them, will not do surgery, obstetrics, radiology, anesthesiology, pathology with or for them, or otherwise professionally associate with them, and this, too, is within the rights of free citizens. If nonmembers should be injured as an incidental result of this lawful refusal of members to associate with them, members of the Association will be held blameless, as the courts have ruled in many cases.

The manifesto declares that it will not attempt to injure anyone but if anyone is injured as a result of the excommunication with bell, book and candle for which the manifesto provides the Association will be held blameless by the courts. The meting out to malefactors of such a ferocious curse will surely cause havoc in the case of some people. We wonder whether the Association's position is really so well buttressed by the law?

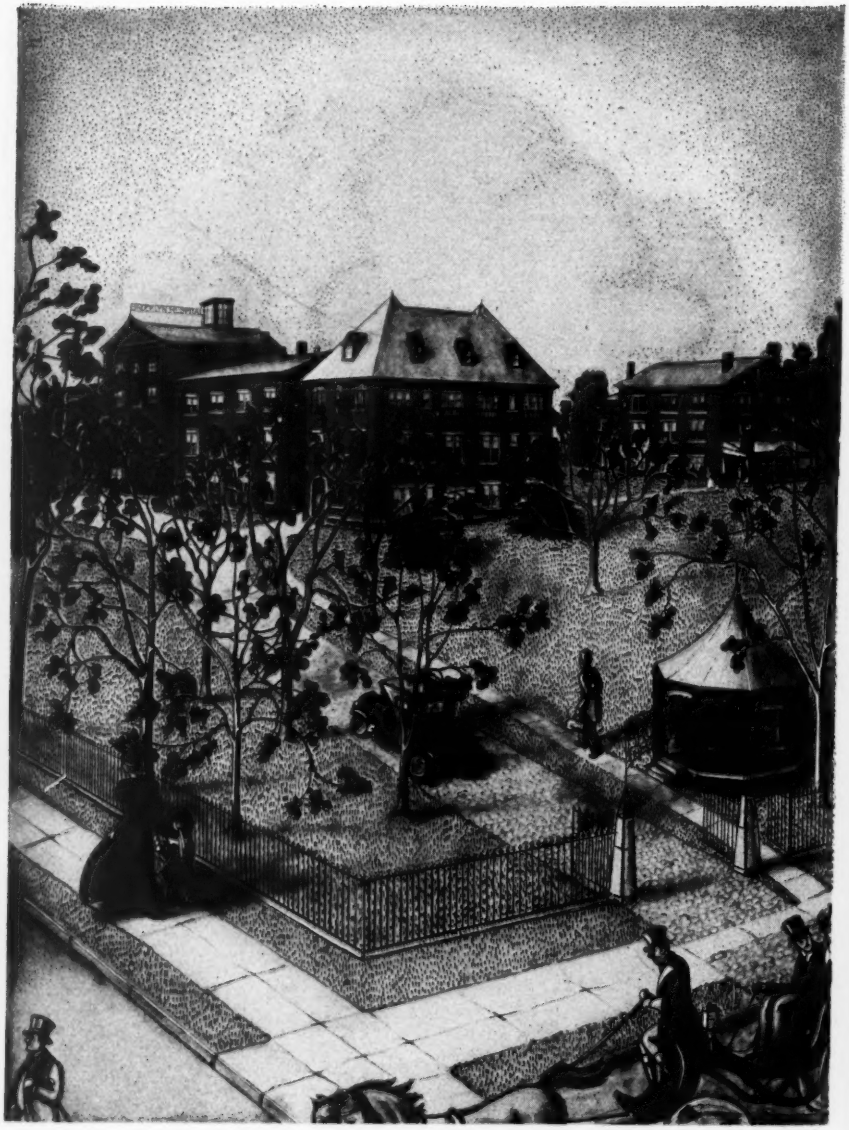
Well, no strikes are contemplated by this new type of union, at any rate. Nor any atrocities, for we cannot conceive the worst of malefactors in the opposition camp being refused aid and succor in the event, let us say, of an attack of appendicitis.

But we like the spirit of this movement enormously. The worm seems to be turning. The gesture promises to be formidable.

### *The New Council's Opportunity*

THE *Journal of the Medical Society of New Jersey* (Vol. 40:543) thinks that in view of the imminent threat of the control of medicine by the Federal government organized medicine, through the new Council on Medical Service and Public Relations of the American Medical Association, should establish an office with an adequate staff in Washington. But because of the urgency of the issues the *Journal* advises a broad-gauge plan whereby joint responsibility would be shared not only by the Council but by the American Public Health Association and the American Hospital

*—Concluded on page 90*



**The Brooklyn Hospital**
**1906**

# CULTURAL MEDICINE

## GEORGE RYERSON FOWLER AT THE BROOKLYN HOSPITAL 1895-1906

**RUSSELL STORY FOWLER, M.D., F.A.C.S.**

**Fellow Société Internationale de Chirurgie**

G. R. was the affectionate way in which George Ryerson Fowler's friends referred to him, though they always addressed him personally as Doctor Fowler. Thus he was held not only in affectionate regard but also in respectful esteem.

The portraits show him as he appeared at the time of his connection with the Brooklyn Hospital.

In order that the younger generation may understand the character of the man it is well to give a brief account of his life before coming to the Brooklyn Hospital.

G. R. is said by many famous authorities to have been one of the greatest surgeons and writers on surgery that this country ever produced. His fame spread all over the world. The story of his rise from a two-dollar-a-month-and-board grocery boy, sleeping under the store counter, to one of the world's great surgeons equals that of any hero ever imagined by Horatio Alger, Jr. The story is inspiring not only to those who have achieved a measure of success, but particularly to those young people of lowly antecedents whose eyes look longingly to a brilliant though distant future; it is a story of constant, vigorous, enthusiastic perseverance toward an ideal.

G. R. was born Christmas day, 1848, almost a century ago, at Jamaica, Long Island. He came of a long line of Americans going back to 1648 on both his father's and mother's sides, and before that of English descent. Ancestors on his father's side fought both in the Revolutionary War and the War of 1812. Ancestors on his mother's side owned the old Ryerson Farm on Wallabout Bay at the foot of what is now Ryerson Street. His father was master mechanic of the old Crosstown car-line.

Before G. R. was 13, he had learned telegraphy from a friend, which later stood him in good stead. When the Civil War broke out, G. R. and a friend walked from Jamaica to New York, getting there late at night, sleeping in an empty house on 23rd Street, and were on the steps of the recruiting station nearby when picked up by the local police and returned to their parents in Jamaica. At that time, both being well-grown boys, they would have probably been accepted for some kind of military duty. Between fourteen and fifteen, G. R. became telegraph operator at Jamaica. At 16 he took a mechanic's job in the Jamaica Long Island Railroad yard. About this time he was present at a railroad accident, a traumatic amputation of the leg. It was then and there that he resolved to become a surgeon.

As you can see, he had little opportunity for schooling. His mother, a highly intelligent woman and a great reader, would read to him as he lay in bed at night, selecting always books that would be of use to him in later life. He, himself, was a great reader.

From his earnings he saved enough to go through Bellevue Medical School, where his preceptor was Joseph D. Bryant, later to become President Cleveland's physician, and with whom G. R. had a lifelong friendship.

GRADUATING from Bellevue in 1872, G. R. came over the old 23rd Street Ferry with just three cents for his ferry fare and an apple for his lunch, carrying his diploma under his arm. He walked from the ferry to upper Flushing Avenue where his parents lived. There he opened an office and was immediately successful. After a year he moved his office to Myrtle Avenue, between Tompkins and Marcy in one of the little stucco houses well back from the street which still stand. I remember it as a very young boy, particularly the large flagstaff which stood in front of the house. While there, he became associated with Dr. John W. Hamilton, a retired surgeon of the United States

Navy who had been a surgeon on the United States Ship Vanderbilt during the Civil War. In 1873 G. R. married John Hamilton's sister-in-law, Louise Rachel Wells.

In those days there was no telephone system. G. R. arranged with Russell Story, a druggist whose store was a few doors above G. R.'s office, to install telegraphy, and with a half dozen other doctors received calls by this means. Their wires antedated the telephone wires which came later. When the telephone came in, these gentlemen gave their wires to the telephone company.

G. R. with Lewis Stephen Pilcher founded in 1878 the Brooklyn Anatomical and Surgical Society from which sprang the *Annals of Surgery*. Pilcher and G. R. were the editors of the transactions published two years after the society was formed. Some other time I would like to go more into the interesting history of that particular time in which Pilcher and G. R. associated with themselves a progressive group of men, many of whom later became prominent in Brooklyn. In 1882 G. R. was appointed as surgeon on the staff of St. Mary's Hospital, working there continuously until the Methodist Episcopal Hospital opened in 1887, when he worked continuously in both hospitals until 1895, when the Brooklyn Hospital called him and he at that time gave up St. Mary's Hospital. In 1884 he visited Europe, going to practically all of the great surgical clinics. He brought back with him the seeds from which grew the Visiting Nurses Association, and on his return also organized first-aid instruction for the police and the National Guard. The first instruction in first aid was proposed by him and given in 1885 at the annual encampment of the New York State militia at Peekskill, N. Y. He was active in the National Guard as a surgeon in the various grades, and at the time of his death he held the rank of Brevet Brigadier General and Surgeon on the staff of the Commanding Officer of the National Guard of the State of New York. In 1886 he was President of the Medical Society of the County of Kings and from 1890 to 1906 the examiner in surgery for the New York State Board of Regents. From 1898 to 1906 he was Treasurer of the American Surgical Association, and in 1906 Vice-President of the New York Academy of Medicine. He

**George Ryerson Fowler**
**1898**

was one of the founders of the Société Internationale de Chirurgie, the first and for nearly half a century the leading and most authoritative exponent of surgical culture and achievement throughout the civilized world, and consulting surgeon to practically every hospital in Brooklyn and Long Island. In 1894 he wrote the first book on appendicitis to be published in the English language, which first appeared in serial form in the *Annals of Surgery*. This was translated into a number of foreign languages, the German translation in 1896 by Professor A. Landerer of Stuttgart. He devised many new surgical instruments and a number of original operations and was a voluminous contributor to surgical literature. There are many more things he did in relation to his loved profession.

Many of these things were done while he was associated with the Brooklyn Hospital. Many improvements in technique and many special instruments were devised by him. Those ten years were the most active of his life, if one can select a period, because all his life he worked all the time. He would get up at 6 A.M. to translate with his German teacher, Herr Panwitz, articles from the German journals. Between 6 and 7 he would translate with Panwitz; between 7 and 8 he would work on his book "A Treatise on Surgery." This was during the years at the Brooklyn. This book he never saw in book form. It was finished in the latter part of 1905, the first copy being published shortly after his death.

Such is the background of the man who midway in 1895 came to the Brooklyn Hospital at the request of the Board of Trustees.

THE year 1895 (May 8th) signalized the fiftieth anniversary of the Brooklyn Hospital's incorporation. Mr. William G. Low was President of the Board. His report of that year stated:

"Our esteemed senior surgeon, Dr. John D. Rushmore, was constrained by the need of rest to take a vacation of some months, and Dr. George R. Fowler kindly consented to take his duties upon himself. Dr. Fowler has been assiduous in his attention to his duties and entirely successful in preventing any detriment to our institution through our loss of Dr. Rushmore's valuable services, by no means easily dispensed with. Dr. Fowler, we trust, has, through his election this year, become a permanent and strong addition to our Visiting Staff. As the amount of surgical work has increased greatly at the Hospital of late, additional assistance has been given to the surgeons-in-chief, and the operating apartments have also been improved in their arrangement. The pathological department, besides, has been given a new and enlarged equipment, so that we enter upon our new year better prepared than ever, and with greater facilities for good surgical work."

In the year 1895, 103 major and 168 minor operations were performed. This increased in the following year, 1896, in which G. R. was made Surgeon-in-Chief, to 317 major and 208 minor operations, more than trebling the number of major operations, It was in this year that G. R. did his original operation of "Implantation of the Ureters into the Rectum" for extrophia of the bladder, an operation which embodies all of the essential technical elements for success, the patient living for 40 years, an all-time high for such an operation. It was unfortunate that this operation was not more widely adopted.

The Trustees' annual report of that year stated:

"The Surgical and Medical Staff have vied with each other as to which could best serve the Hospital, and when all have done alike well, distinctions would seem invidious. The staff have earned, and should receive, unqualified praise for their able and disinterested work."

The Surgical Staff for that year was: G. R., Surgeon-in-Chief; Walter C. Wood and Robert L. Dickinson, Attending Surgeons; Wood came with G. R. from St. Mary's; Dickinson, in addition to being associated with Skene, Professor of Gynecology at Long Island College Hospital, and having illustrated Skene's book, was an outstanding gynecologist, a master of plastic work and a wonderful teacher; Richard Ward Westbrook, an ex-intern of St. Mary's and on G. R.'s death one of the attending surgeons at the Brooklyn Hospital, and Russell S. Fowler, Adjunct Surgeons. This small Surgical Staff continued without change till 1902, in the report of which year we find Dr. Ralph H. Pomeroy's name added as Adjunct Surgeon and the names of Doctors A. A. Hussey, J. Meade Callender, John E. Jennings and George L. Buist added as Clinical Assistants in the Hospital.

No further changes in the hospital Surgical Staff appeared till after G. R.'s death in 1906.

Many of the ex-interns had been added to the Dispensary Staff and other departments of the hospital during G. R.'s ten years of service.

IT was in 1899 that G. R. developed the "Elevated Head and Trunk Position in the treatment of Diffuse Septic Peritonitis." This method has become known throughout the world as the Fowler Position and has been instrumental in saving innumerable lives. Its history, as occurring in the Brooklyn Hospital, is interesting. G. R.'s first contribution on the subject was made before the Brooklyn Surgical Society, March 1, 1900 (published in the *Brooklyn Medical Journal*, Vol-

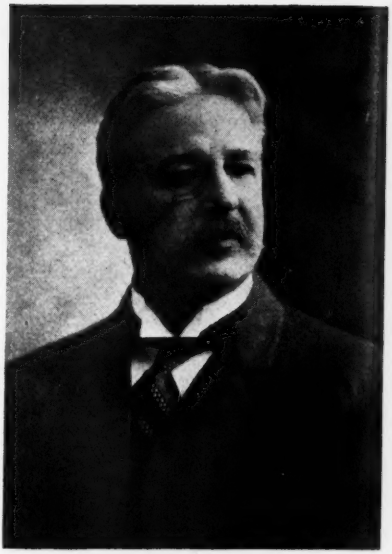
ume 15, pages 15 to 23), from which I quote:

"Owing to the exceedingly favorable course followed by a case of diffuse septic peritonitis in which the elevated head and trunk position was prescribed by his assistant, Dr. R. S. Fowler, to prevent vomiting and facilitate peristalsis, Dr. Fowler began a series of observations in order to test the efficiency of this measure combined with free drainage in the treatment of diffuse septic peritonitis, with the result that seven consecutive cases, all but one of which originated in bacterial infection from the intestinal canal, so treated, ended in recovery."

Again, in an article published in the *Medical Record* of April 14, 1900, G. R. stated:

"It was during the after-treatment of a case of diffuse septic peritonitis, the result of early perforation of a violently inflamed appendix directly into the peritoneal cavity and between the coils of small intestine, and in which I had placed a glass drain as well as a number of wick drains deep in the pelvis, that the line of thought above expressed occupied my mind. My assistant, Dr. R. S. Fowler, had been in the habit of treating cases of vomiting following etherization by raising the head of the bed as high as possible consistent with comfort, thus bringing the force of gravity to bear in facilitating normal peristalsis. In view of the favorable course which the case then in hand was pursuing, it was determined to adopt this as a routine procedure for the purpose of facilitating the passage of septic fluid from the general peritoneal cavity to that of the pelvis, where, according to the reasoning above outlined, it would do but little harm, comparatively speaking, and from which locality it could be more readily removed by drainage methods. This has been done, and a further experience with the method seems to bear out the favorable opinion first entertained of this measure as of value in aiding to combat the mortality in this much-dreaded condition."

I quote thus extensively on this subject not only to show G.R.'s keen mind in correlating pathology, physiology and physics to the results of treatment, but to show his fair-mindedness in giving credit to his Assistants for their work. There never was a finer master.



**George Ryerson Fowler**
**1906**

G. R'S personality and skill attracted to him men who, through his training and their own ability, advanced to high positions in American surgery. To mention a few, H. Beeckman Delatour, his first assistant at the Methodist Episcopal Hospital, became Attending Surgeon at St. John's, Chief Surgeon at the Norwegian, and Professor of Surgery at Long Island College. Walter C. Wood, his assistant at St. Mary's, where years before G.R. had done the first operation for appendicitis in Brooklyn, became Attending Surgeon at St. Mary's, Attending Surgeon at the Brooklyn and later Professor of Surgery at Long Island College. Algernon T. Bristow, an outstanding gentleman, came to G.R. as assistant at St. Mary's when Bristow was Professor of Anatomy at Long Island College. He later became Professor of Surgery at that institution. John E. Jennings, clinical assistant at the Brooklyn, rose to be Chief Surgeon of the Brooklyn, Chief Surgeon at Greenpoint and Chief Surgeon at St. John's.

All those associated with G. R. have through his example been impelled to advance the science and art of surgery unselfishly and to the advancement of their

associates. Surgery is indebted to him for many things and we who were associated with him owe him much. There never was a man associated with G. R. who did not profit from that association.

IT was during G.R.'s 10 years at the Brooklyn that the Spanish-American War broke out (1898-1899). G.R., as I have stated in his previous history, had attempted to enlist in the Civil War. His determination to serve his country had never left his mind, so when the Spanish-American War came he set about getting a commission. He was commissioned in 1898 by President McKinley and was assigned to the 7th Army Corps under the command of General Fitzhugh Lee. G.R. was absent from his hospital duties for nine months, going to Havana with Lee for the occupation of Cuba. During this war period, Najeeb M. Saleeby was one of our interns who entered the Army and attracted the favorable attention of Taft, later acompanying Taft to the Philippines to take part in the educational movement and writing the first textbook in Arabic for the Philippinos.

Saleeby's brother tried to get the United States to take the mandate of Syria at the end of World War I. Woodrow Wilson opposed it, I understand; too bad! Americans in Syria would have been a great determent to Drang nach Osten!

Frederick L. Benton, who was house surgeon during this period, received an intensive course in surgery at the Brooklyn Hospital, entered the Navy, and was with Dewey at Manila. Benton is now retired and lives in Washington, D. C. We may see him in the service again.

It is interesting to trace what happened to other interns who served with G.R. Ernest Tanner is now Chief Surgeon; Lohman became Chief Physician; Claude Crane was Chief of the Ear, Nose and Throat Department; Nathaniel Rathbun, Chief of the Genito-Urinary Department; Paul Parrish, noted pediatrician, lately Chief of that department at Kings County and now Director of Pediatrics at St. John's; Frederic C. Eastman, well-known Neurologist and an associate of the noted Browning; George L. Buist, the first anesthetist at the Brooklyn Hospital, later Genito-Urinary Associate, and still later eminent physician; Archibald D. Smith, well-known pediatrician; well-loved Thurston Dexter, pathologist, assistant to Van Cott, Professor of Pathology at the Long Island College of Medicine, who in those days was head of the Pathological Department, developed Van Cott's vaccine and contributed the chapter on pathology to G.R.'s book on appendicitis. Herman F. McChesney, successful surgeon and the originator of a new method of skin grafting; Gilbert M. Aitkin, veteran of the World War and still active in practice in Banff, Alberta, Canada; Lee Maidment Hurd, well known laryngologist of Manhattan.

There are many more. I have the old yearly reports and, as I read over the names and positions, there is not one who during his life failed to carry on the tradition of loyalty and this is also true of those who have taken the long journey home. Each name calls to my mind some event. The happiest ten years of my professional life were at the Brooklyn Hospital. Each one of the long list of interns shared with me the helpfulness of G.R.

G. R. was appointed Professor of Surgery at the New York Polyclinic in 1896 or 1897, and served for four or five years during the Brooklyn Hospital period. Our old operating room was crowded every Thursday morning with Polyclinic students, thirty or more at a time. G.R. was a very practical teacher and taught the simpler, more understandable methods and technique with the simpler instruments that could be carried out under other than hospital conditions. Many of these men came from the Southwest where at that time conditions for hospitalization were not advanced. Each Wednesday morning he lectured and demonstrated at the Polyclinic, then at 34th Street, Manhattan, under the presidency and direction of that distinguished old warhorse, Dr. John Wyeth, the inventor of the Wyeth pins for use in amputation of the extremities. G.R. would leave his assistants to finish up odds and ends on these occasions, so that Willoughby Wood, Thomas Spence, David Goldstein, Lewis Pearson and I would work for an hour or so more and then return later in the week to prepare for the following week's lecture by selecting clinical cases.

Our old operating room at the Brooklyn Hospital had many visitors. Murphy of Chicago visited and operated here, doing his famous Murphy button operation; so also came the younger Macewen of Glas-

gow, surgeons from Germany and many others who were afterward lunched at the Montauk Club no matter how busy was the day.

The clinics were always well attended not only at the Brooklyn but at the Methodist and at the old German, in all three of which G.R. was on continuous service. He never seemed to tire.

Those were the years during which specialists developed from general surgeons. The surgeon of that day did all kinds of operations. We had mastoids, nephrectomies, prostatectomies, brain and spinal tumors, laryngectomies, intracranial neurectomies, goiters, in fact all general surgical cases and also all of the specialties.

The days were full and four or five nights a week would see G.R. operating in the middle of the night. He could tire out one assistant after another, and never seemed tired himself.

G. R. died February 6, 1906, in Albany, New York, from the very disease, appendicitis, on which he was an authority. Up to the hour of his last illness, he was working for the benefit of the profession which he loved so well. He had just completed, with Abraham Jacobi, Chairman, Wisner R. Townsend, Secretary, Julius C. Bierwirth, Henry L. Elsner, E. Eliot Harris, Alexander Lambert, Parker Syms, A. VanderVeer and Frank Van Fleet, the Joint Committee of Conference, the consolidation of the Medical Society of the State of New York and the New York State Medical Association. Joseph D. Bryant, G.R.'s old preceptor at Bellevue, was President of the State Medical Society at this time, so that G.R.'s professional life was ended as it had begun with Joseph D. Bryant, who accompanied him to Albany. Bryant, a year later, in giving his presidential address to the House of Delegates of the Medical Society of the State of New York, said:

"To close an address at this time, and in this presence, without tenderly uncovering an unhealed wound of the heart, it is quite impossible for me to do. More than one heart suffered when, about a year ago, Dr. George Ryerson Fowler died. And, because of his death, many hearts will bear the scar of personal affliction, so long as memory invests the seat of reason. Dr. Fowler was once a student and always a friend of mine. In whatsoever relation we were, no request of Dr. Fowler's was ever unheeded by me, nor was one of mine ever unrequited by him. His presence was inspiring; his action convincing; his loyalty certain; and his steadfastness of purpose knew no obstacle.

"Less than an hour before the attack that caused his death, he had come many miles to see me in behalf of professional consolidation. His last words to me before operation—in fact, the last I ever heard him utter, were those of pleasure and approval, because of the bright outlook secured by our mutual cooperation in the adjustment of medical society differences.

"If in spirit he be with us tonight, then, indeed, should the joy which he experiences, because of the outcome for which he labored so fondly and earnestly, hallow the occasion. And a consummation thus sanctified should ever bear indelibly the stamp of human constancy."

Bristow with Albert VanderVeer and MacDonald of Albany operated on G.R.

His funeral was a military one, his rank of Colonel and Brevet Brigadier General requiring a regiment as the funeral escort. The Fourteenth Regiment, his old command, with which he had been so long associated, was designated for this purpose.

So at fifty-eight years of age in the full vigor of his manhood passed on the man who did so much to alleviate human suffering, to advance his profession, and who was a constant friend.

"A servant of mankind. The friend of the suffering. A brother amongst brethren. Wise in council, sagacious in debate, courageous in the hour of danger, undaunted in the face of death. His life an inspiration to the young, a challenge to his peers, an example to all."*

301 DeKalb Avenue, Brooklyn, N. Y.

* Quoted from the Bronze Tablet in the foyer of the Medical Society of the County of Kings.

# THE DIRECT PRACTICAL APPLICATION OF THE FUNDAMENTALS OF LABORATORY MEDICINE TO GENERAL PRACTICE, WITH PARTICULAR REFERENCE TO CHEMOTHERAPY

**THEODORE J. CURPHEY, M.D.**
**Garden City, New York**

THE subject chosen lends itself to several different approaches. First, it can be discussed from the point of view of the contribution that the laboratory has made to clinical medicine in respect to the discoveries in, and the development of, the field of chemotherapy. This in itself represents a glorious epoch in the annals of pure scientific research, and exemplifies the possibilities of reward and satisfaction that come from obtaining positive results in an experimental problem, and then being able to see an immediate and ready practical application of the experimental evidence to clinical medicine. From the point of view of the researcher there is no greater and more abiding satisfaction than to see his experimental results stand up to the supreme test of clinical trial, for he knows better than any one else the pitfalls of scientific experiment with the rigors of such factors as biological variables, species difference and the like. Further, if he be truly critical, he is as frequently as genuinely surprised as his clinical brethren, that the experimental results apply so well to clinical material, with its own welter of variables, and often, too, with the unscientific application of the experimental evidence by the clinical workers themselves.

If one saw fit to labor this approach, it would then become necessary to explore the bibliography of chemotherapeutic research, first, in the field of animal experimentation and then later in the field of clinical application, and to show the excellent correlation that exists between the two. However, the demands of time, the competence of the correlator, and as much as anything, the understandable lack of interest on the part of the general practitioner in such matters, all make such an approach unprofitable. Besides which, these matters have little to do with the fundamentals of laboratory medicine in the clinical sense, and least of all with any direct application thereof.

Another approach and, it must be confessed, one that carries a greater personal appeal to me, is that of viewing the present status of chemotherapy in the field of clinical medicine as a basis for indulging in some self-examination and possibly self-criticism in the clinical field itself. If one uses the fundamentals of laboratory medicine as the instrument for such an approach to the problem, perchance it might be possible to develop a theme, the direction of which would be sufficiently purposeful, as to bear not only on the question of chemotherapy but also on the problems of everyday medical practice in general. Provided my readers are willing to indulge me in this approach, then they are in a fit state of mind to pardon the choice of such a voluminous title to this article.

THERE has never been a more opportune time within the ken of most of us, than now, to ponder on the fundamentals of human existence. Those of us who reached our maturity prior to World War I and who have lived the intervening years with even a small sense of realization of everyday world events—and it must be confessed that the physician's horizon on such matters is all too narrow, whether he be either the highly favored star of the firmament of the medical school or the busy practitioner whose interests are greatly narrowed by physical fatigue—have seen unfolded before our eyes a series of events in every field of human endeavor, the common denominator of which is chaos.

We have been faced in the last quarter of a century with an intensive period of experimentation in every phase of human life, and no one can deny that in most

From the Meadowbrook Hospital, Hempstead, New York.

Originally delivered as an address in the Kings County Medical Society's lecture series.

individual instances much progress has been made. In the field of mechanical science, the growth of the machine with its labor saving devices is pre-eminent and purposeful. Similarly in the field of medical science, amazing advances have been made in public health with its necessary adjunct preventive medicine, as well as in surgery and also in laboratory medicine. The sum total of these advances theoretically should have been to improve the working and living conditions of the human race and thus to improve human relationships in the larger sense. But here the difference between abstract theory and practical realization becomes evident. Despite all the scientific advancement made in the various fields of effort, the practical fact is that, when measured in sum total, the human being fares almost as badly now as he did at the turn of the century.

Why this paradox? One of course cannot supply a complete answer, but might the reason not be due in part to the fact that there is too wide a gap between the man of science and the average man, with the result that neither one speaks the other's language? For example, it has been my unusual good fortune to be on equally intimate terms with both types of men, and I have frequently been impressed with the idealistic impracticability of the former and the material utilitarianism of the latter. It is as if the man of science was naive and lacked true knowledge of the facts of life, while the "average" man was so engrossed in living the facts as not to take time off to look into their significance. The sum total of this state of affairs is that abundant scientific advance is made in many fields, but much of it lies stagnant, because of the inability of the average man to apply it to the living of a rounded existence, due no doubt to his lack of knowledge of the technique of scientific appreciation. One often feels that if the scientists declared a moratorium on original research for a time, and devoted their efforts instead to disseminating the simple ideas of scientific thought to the average man, such effort would be amply rewarded by the rapid increase in the ability of the average man to understand and to utilize the scientific method in his habits of life. To use a timely simile—it would seem that in the larger conflict of the race against ignorance, intolerance, fear and disease, the men of science are manning outpost positions so far ahead of the advancing army in their thrust into enemy territory, that because of an inadequate communication system they bid fair to be captured, and thus to bring much of their usefulness to naught.

This then appears to be much of the picture of the world today, with its lack of even progress and its jutting irregularities of ground gained, with human thought inchoate and undisciplined, with much evidence of knowledge but little sign of wisdom, with dominance of the instinctive drives of selfishness and intolerance, lodging as much in the minds of cultured men of science as in the individual, the victim of crude circumstance.

But what has all this to do with laboratory medicine and general practice? The answer is simple—the parts reflect the pattern of the whole, and therefore the situation in our particular field must reflect that of the world as a whole.

ONE of the first questions one is entitled to ask is "What are the fundamentals of laboratory medicine?" As I see it, they are simply adequate observations, by means of certain techniques, of controlled or uncontrolled biological phenomena, either in health or in disease, directed towards an attempt to explain their significance, and frequently associated with controlled efforts at influencing the direction of their termination. In a general sense, therefore, while laboratory medicine is a branch of medical practice, by virtue of its approach, it might be regarded as the common ground on which the objective scientific and the subjective clinical paths meet.

With such a scientific heritage, laboratory medicine makes certain demands of its followers. It demands that the approach to a problem be thoughtful, objective, unprejudiced and founded on factual evidence, and that the solution of the problem be allowed to stand on its own merits, and must neither be titivated or emasculated to suit the particular emotional or economic audience to its hearing.

However, in everyday practice, it functions in correlation with clinical medicine, and often takes up the problems where clinical practice leaves off, so that per-

force it has to be dependent on the clinician for the very basic material of which its initial problem is composed. And there's probably the greatest rub! Those of us who have travelled in the wilds know only too well the dangers of starting on the wrong path through the forest. Many a brilliant laboratory diagnosis based on a faulty clinical lead has led to dire therapeutic results and the frequent and inevitable disillusionment of the dead house.

IF, then, the laboratory approach is dependent on the initial thinking and care of the clinician, what are the responsibilities of the general practitioner in respect to the fundamentals of laboratory medicine? Broadly speaking, the main responsibility is that of applying scientific methods to the study of disease, no matter what the special problem in question might be. And yet in the field of general practice, how many physicians are disciplined in this approach?

A survey of the present intensive use of chemotherapeutic agents in clinical medicine offers the best example of this matter. While it is not the intention of the writer to decry the tremendous value that now exists in the use of various chemotherapeutic agents in the field of clinical medicine, it nevertheless would appear that the present methods of using these agents in general practice call for more than passing comment on the underlying ideology of many of those prescribing them. It would seem to the laboratory worker with but little clinical experience that many of the present methods having to do with the widespread use of chemotherapeutic agents tend to accentuate more than ever certain rather unhealthy tendencies in clinical practice that have always existed. Clinical medicine at best has always been a haphazard process in which scientific thinking has frequently been outdistanced by the urgencies of the moment, the limited economic circumstances of the patient and the looseness of the mental fibre of the medical attendant. This last feature has frequently been conditioned by the natural mental inertia that follows frequent frustration in the physician's earlier years, when the scientific approach to disease seemed to carry little tangible return in the care of the patient, and where it frequently meant the loss of his patient to his less scientific brother, who showed fewer doubts and greater self-confidence, if albeit a less thorough approach. From such experience he quickly learns that one is able to impress the patient, and that many problems are readily solved by the man who dispenses optimism, while Nature takes care of the disease. As an observer of disease, the physician frequently starts out with a large measure of intellectual honesty and a critical and scientific analytic sense, only to find the frequent impracticability of giving rein to those impulses because of the limitations of clinical practice. Small wonder, then, that sharing the frailties of human nature as he does, he quickly loses touch with scientific thinking and lapses into an uncritical approach, especially when he observes that in the main so many disease processes run their immutable course, with or without benefit of science. This observation tends to the development of a sort of fatalistic attitude, leaving the physician with the understandable, though not necessarily correct, feeling that it appears to matter little whether medical care is dispensed by a disciplined mind or by one more concerned with personal success rather than with science; that in any event the outcome measured in terms of the patient and his disease is practically the same. And here, as one reasonably familiar with the end results of disease, studied largely from the vantage point of the laboratory of the surgical pathologist and the autopsy room, one has only to seek for such an example in such an exacting field as surgery, where frequently it does seem as if Mother Nature is all-beneficent both to the patient and to the surgeon, judging by ultimate success as measured by the knowledge, the skill and the care of the operator. How often has the pathologist seen the most inexpert and inexperienced operator violate all the rules of sound surgical practice, only to be rewarded by a successful outcome for which he usually claims the sole credit, forgetting the old phrase "vis medicatrix naturae"! These facts, in many other fields besides surgery, are known to the thinking medical man and add to the discouragement of a continued scientific approach in the study of disease. This fatalistic and unscientific attitude colors a great deal of his clinical work, and until recent years might have

carried with it little actual danger, especially in the therapeutic field, because so many drugs, aside from the so-called specifics, were of questionable therapeutic value and fortunately carried a wide margin of safety in respect to their individual toxicity. Not so, however, with the various chemotherapeutic agents that have recently come into the field, and which have readily and in many instances dramatically proven their worth. Many of these agents show a narrow range between optimal therapeutic efficiency and definite drug toxicity in clinical practice. Many of them show also a predilection to injure certain body systems with great constancy, either because of an individual idiosyncrasy or sensitivity on the part of a given system, or as frequently, because of uncontrolled dosage with insufficient clinical and laboratory study of the system involved, for the purpose of detecting the early evidence of such injury at a time when the damage is reversible, and when toxic effects will disappear following withdrawal of the drug. All these facts have been rapidly accumulating in the course of the past few years and are widely known in clinical medicine, but for some reason or other they have not been given the emphasis they deserve, especially by the general practitioner.

WE are then at present in a position where we have at hand many highly potent chemotherapeutic agents with definite indications for their use, but whose use demands definite skill in their administration, and by the same token whose abuse carries a definite and appreciable hazard in respect to morbidity and even at times to mortality, if their administration be indiscriminate.

To those of us who, perhaps because of our naive optimism, continually cherish the hope of a scientific millenium in clinical medicine, the present status of chemotherapy is literally a God-given gift in that direction. At last there is within the reach of every hand, certain agents of high curative value which beckon the practitioner with the knowledge that they must be wooed if they are to yield their virtues, and which warn him they will suffer no rough handling without exacting their price. Knowing this, then, what better state of affairs could exist for justifying the abandonment of the fatalistic or nihilistic attitude toward drug therapy, and the embarking instead on a course demanding close clinical observation of disease states, subject to immediate influence by drugs and associated frequently with a narrow margin of safety in their administration? What more challenge could the physician ask for than the opportunity of piloting his patient between the Scylla of the disease and the Charybdis of the treatment! And what visions there are of the numerous wrecks on the shoals of clinical practice, due to the inexpertness of those of us who use these agents without proper knowledge.

Such a vision of things to come demands above everything else the practical application of the fundamentals of laboratory medicine to general practice. Such a future, moreover, places the correct emphasis on the importance of the sustained scientific approach to clinical problems with the concomitant rewards to the physician who is so minded, while at the same time providing an effective threat to him who remains uncritical and empirical in matters of therapy.

*—To be continued*

### *Immediate War Mortality*

IT can be said that so far in this war approximately less than half as many have been killed or died afterwards as in the last war in proportion to the total number of men engaged in combat. At the time we had been engaged in war for 23 months, as compared with the 19 months of the World War, our casualties approximated only one-third of those suffered a quarter of a century ago. It should be noted, however, that among battle casualties more are killed outright in this war, in proportion to the wounded, missing, and prisoners of war, than in the last war.

# CONTEMPORARY PROGRESS

## MEDICINE

### *Penicillin*

C. H. RAMMELKAMP and C. S. KEEFER (*Journal of Clinical Investigation*, 22:649, Sept. 1943) report experiments on the action of penicillin against *Streptococcus hemolyticus* and *Staphylococcus aureus*. It was found that the addition of penicillin to whole blood *in vitro* increased its antistreptococcal and antistaphylococcal activity; the effect was similar in the serum, and was therefore not due to phagocytosis but was found to depend on the concentration of penicillin in the serum. When penicillin was given by various routes to normal persons, the bactericidal and bacteriostatic action of the blood and serum of these persons was increased against both *Staphylococcus aureus* and *Streptococcus hemolyticus*. Maximal bactericidal effects against the hemolytic streptococcus were noted with a concentration of 0.019 to 0.156 Florey unit of penicillin per cc. of serum; for maximum bacteriostatic action against *Staphylococcus aureus*, a concentration of at least 0.156 Florey unit was required. The authors have found that in bacteremia or localized infections caused by *Staphylococcus aureus*, the blood or the lesion may not be sterilized for several days after penicillin therapy is begun. This result, they state, "might have been predicted" from the observed effect of penicillin in whole blood on a large inoculum of staphylococci in the *in vitro* studies. As the findings of other investigators have indicated that the mechanism of the antibacterial action of penicillin and the sulfonamides is different, the authors suggest that a combination of penicillin with sulfathiazole or sulfadiazine might prove more effective in staphylococcal infections than either preparation alone. Preliminary laboratory studies have indicated that the addition of small amounts of penicillin enhances the action of sulfathiazole against staphylococci in whole defibrinated blood.

M. H. Dawson and associates at the College of Physicians and Surgeons (*Annals of Internal Medicine*, 19:707 No. 1943) present a review of the experimental work on penicillin in their own and other laboratories. These experiments have shown that penicillin has "a remarkable anti-bacterial action" against Gram positive organisms, gonococci and meningococci, but not against Gram negative organisms. Penicillin has been found to be effective in the presence of pus and inflammatory exudates; its action may be bactericidal or bacteriostatic "according to the conditions of the experiment." Animal experiments have indicated that penicillin is of low toxicity, no toxic symptoms developing with doses "far exceeding" the therapeutic dose. Pencillin is excreted rapidly through the kidneys, so that it must be given frequently to maintain adequate blood concentration, and efforts are being directed toward the preparation of compounds that will release active penicillin slowly into the circulation. The clinical use of penicillin has been hindered by the small supply and the need for the use of much of this supply for experimental work. However, a number of cases of infections due to hemolytic streptococcus, pneumococcus, gonococcus, meningococcus and staphylococcus have been treated with excellent results. It is of especial importance that penicillin has proved effective in cases resistant to sulfonamides. Penicillin may be given intramuscularly, intravenously, or intrathecally or applied locally. No serious toxic effects have been observed in the cases treated. The authors conclude that penicillin "promises to be a chemotherapeutic agent of great clinical value."

COMMENT

*It will be a great comfort to have penicillin available. On several occasions I have wished it were possible to use it, especially in sulfonamide-resistant gonococcus infections. Incidentally, what will become of some of the sulfonamides now on the shelves when penicillin is obtainable. Sometime ago I noted that sulfapyridine (after the newer drugs replaced it) was being shipped to Russia. It seemed to me that vomiting and fighting might not mix well.*

*M.W.T.*

### *Peptic Ulcer Treated with the Aid of Posterior Pituitary Extract*

M. H. METZ and R. W. LACKEY (*Southern Medical Journal*, 36:947, Nov. 1943) have employed posterior pituitary extract in the treatment of peptic ulcer since 1937. The use of this extract was first suggested by the fact that some patients with peptic ulcer had unexplained polyuria, and that both the ulcer symptoms and the polyuria were relieved by the administration of posterior pituitary extract. Experimental and clinical studies showed, however, that whether polyuria was present or not peptic ulcer was associated with gastric hypersecretion, gastric and duodenal hypermotility and hyperemia of the gastric mucosa, and that these three abnormal functional changes were more favorably influenced by posterior pituitary extract than by other methods of medical management without the extract. Since 1937 the authors have treated 200 patients with peptic ulcer with the aid of "posterior pituitary extract as a supplement to rational medical management." The diagnosis was confirmed by roentgenological examination in all cases. In most cases the extract was given by intranasal insufflation; in 25 cases orally, and in 4 by hypodermic injections. Roentgen examination showed little or no scar in 101 of the authors' 200 cases; satisfactory results were obtained with the treatment in 87, or 86 per cent; 24 had a recurrence; 18 of these used the pituitary extract in a second course of treatment, and of these 11 have since been free of symptoms. In 99 patients with x-ray evidence of "marked chronicity" (moderate or marked cicatrix formation), medical treatment with posterior pituitary extract gave good results in 69 cases, or 70 per cent; 35 had a recurrence; a second course of treatment in 29 cases resulted in relief of symptoms in 9. Surgery was necessary in only 20 of the 200 cases. In addition, reports have been received from other physicians who have used posterior pituitary extract in the medical management of 218 patients with peptic ulcer. The treatment was effective in 146 or 67 per cent; 59 patients had a recurrence; 49 of these patients were again relieved of symptoms by a second course of treatment. Combining the two series, satisfactory clinical results were obtained in 311 cases, or 74 per cent of 418 cases. The authors emphasize the fact that the posterior pituitary extract is indicated as a part of general medical management of peptic ulcer, and only in cases of uncomplicated ulcer.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COMMENT

*Interesting observations worthy of extended investigations.* *M.W.T.*

### *Thyrotoxicosis As the Sole Cause of Heart Failure*

W. B. LIKOFF and S. A. LEVINE (*American Journal of Medical Sciences*, 206:425, Oct. 1943) report that among 403 cases of thyrotoxicosis in which thyroidectomy was done, there were 21 cases of definite congestive heart failure in patients in whom no evidence of organic heart disease or coronary artery disease was found. This type of heart failure is considered to be due to the thyrotoxicosis alone; it occurred most frequently in women and when the thyrotoxic state was of long duration. After thyroidectomy none of these 21 patients who had cardiac failure from thyrotoxicosis alone showed any evidence of heart disease. These patients have been followed up for an average of five years (in one instance ten years); 4 have died during this period, all from carcinoma. The others are "essentially well." The authors conclude from their study of these cases that "marked thyrotoxicosis" is undoubtedly being overlooked as a cause of heart failure, "an error which is very costly because the condition is curable."

COMMENT

***One should be on guard for this condition, especially in older persons.*** ***M. W. T.***

## SURGERY

### *Germicidal Activity of Alcohol, Hydrochloric Acid and Aluminum Potassium Sulfate; Their Effect On Cutaneous Flora*

E. MEYER and E. E. VICHER (*Archives of Surgery*, 62:13, October 1943) report a study of the germicidal activity of alcohol, hydrochloric acid and aluminum potassium sulfate, with special reference to their action on the bacterial flora of the skin. It was found that alcohol in a concentration of 70 per cent by volume was an effective bactericidal agent against skin bacteria; 0.5 per cent solution of hydrochloric acid was also an effective bactericide against these bacteria, but not quite so effective as 70 per cent alcohol. Aluminum potassium sulfate in 10 per cent aqueous solution was found to "harden" the skin and thus "imprison" the skin bacteria but not destroy them; when the skin is softened by the wearing of rubber gloves, the bacteria are "released" and removed in the subsequent scrubbing. From these studies the authors conclude that alcohol in 70 per cent solution (by volume) is efficient for use in the presurgical preparation of the surgeon's hands, but that a 0.5 per cent solution of hydrochloric acid is also sufficiently effective as a germicide so that it can safely be used for this purpose and thus conserve the supply of alcohol "for more essential purposes."

COMMENT

***The requirements of our armed forces both in the field and at home and the demands of our "all out" war effort are reflected in a shrinkage in our medical and surgical armamentarium. While mechanical cleansing, deliberate and thorough, is the prerequisite in disinfecting the hands of surgeons, assistants and nurses, resort is frequently had in addition to immersion in a solution of alcohol, alone, or in combination with other antiseptic agents.***

***It is good to know that when alcohol cannot be had for hand disinfection, immersion in 0.5% solution of hydrochloric acid will have sufficient germicidal effect, and may be safely used as a substitute. Too much emphasis cannot be placed upon the necessity for a very definite technic in mechanical cleansing over a stated period of time. To come anywhere near securing adequate disenfection of the hands it is of the utmost importance to protect them from septic contamination by the use of gloves in handling dressings and in making vaginal and rectal examinations.*** ***T.M.B.***

### *New Transverse Low Abdominal Incision*

L. S. CHERNEY (*California and Western Medicine*, 59:215, Oct. 1943) describes a transverse low abdominal incision, which is a modification of the Maylard or Bardenheuer incision, which, in turn, is derived from the Pfannenstiel incision. With the author's technique the curvilinear incision is used through the skin and subcutaneous tissues, beginning below the iliac spine on one side and crossing the

midline, "just within the upper pubic hair line," to a corresponding point on the opposite side. The anterior sheath of the rectus muscle is divided on either side of the midline, the incision extending laterally through the aponeuroses of the external and internal oblique muscles, exposing the underlying recti in the center and the peritoneum and fascia transversalis laterally. The lower flap of the rectus sheath on each side of the midline is separated by gauze dissection from the rectus muscle, as far as the pubic bones. The recti are cut "at their very insertion" into the pubis, where they are fibrous, and often entirely tendinous, and then reflected upward. In closing the incision, reattachment of the recti is facilitated by flexing the patient's pelvis on the trunk and deepening the anesthesia slightly; the recti are still firmly attached to the upper flap of their anterior sheath, and if the edges of this flap are grasped and pulled down, the lower end of the muscles may be more easily sutured. The chief advantage of this incision is that it gives excellent exposure for the lower sigmoid, upper rectum, region of the bifurcation of the aorta, and "the organs contained in the broad ligament." Even in male patients the rectum can be mobilized as far as the end of the coccyx under direct vision with this incision. This incision also has advantages from the point of view of anesthesia; spinal anesthesia does not need to extend higher than the eleventh segment of the thoracic cord; general anesthesia may be light, except for reattachment of the rectus muscles. Little packing is required to keep the small intestines out of the wound, and hence there is less tendency to postoperative distention. The low incision also results in lessening of pain on deep respiration, coughing and moving postoperatively. The resulting wound is strong, because with this incision no muscle is denervated, all sutures are made in aponeurosis or tendon; the incision is "staggered" so that all layers of the abdominal wall are not weakened in the same place, and the direction of the main muscle pull is parallel to the direction of the incision. From the patient's point of view, the appearance of the scar is satisfactory.

COMMENT

***When it would seem that in the elaboration of surgical procedures perfection had been attained, out of the blue comes a modification which purports to improve on what had appeared to be perfect.***

***Abdominal incisions, innumerable and varied, should give adequate exposure of the operative area and in so doing should damage the integrity of the abdominal wall as little as possible.***

***The recent trend is toward transverse incisions of one type or another. Postoperative discomfort is undoubtedly less and where this particular factor is active in the production of postoperative complications, a shorter and smoother convalescence can be expected following this type of incision. Again, wound disruption and postoperative incisional hernia occur rarely and in most cases not at all when the transverse incision is used. However, emphasis on adequate preoperative care and the active cooperation of the highly trained and capable modern anesthetist will make feasible the use of any well planned opening and closure of the abdominal wall. Surgeons will always show a preference for given types of incisions. The incisions selected should meet the circumstances surrounding each individual case. The incision should be fitted to the patient, and no attempt should be made to fit the patient to the incision.***

***The incision described in this article is ingenious and worth while. The anatomical and physiological "reasons why", behind it, are sound. The necessary technic is not exactly simple, and therefore requires mature training and judgment.*** ***T.M.B.***

## *The Use of Isinglass As a Blood Substitute in Hemorrhage and Shock*

N. B. TAYLOR and his associates at the University of Toronto (*Canadian Medical Association Journal*, 49:251, Oct. 1943) describe the preparation of a solution of isinglass which has been used as a blood substitute in animal experiments. In the treatment of acute hemorrhage the isinglass solution proved a satisfactory substitute, transfusion with this solution resulting in complete recovery in most animals. In shock due to muscle damage transfusion with either whole blood or isinglass solution was not effective. The isinglass solution was found to have a slight pyrogenic action, but the rise in temperature induced is "well within the limit" of the specifications for the pyrogen test of the U. S. Department of Public Health. The isinglass solution was found to have no antigenic action. Transfusion with isinglass solution did not interfere with the regeneration of plasma protein after acute hemorrhage. The evidence indicated that the protein of the in-

jected solution may be utilized for building body tissue, and "possibly in the manufacture of plasma protein."

H. E. PUGSLEY and R. F. FARQUHARSON (*Canadian Medical Association Journal*, 49:262, Oct. 1943) report the use of the isinglass solution in 61 patients. In 51 cases a solution of powdered isinglass in physiological saline (4 to 7 per cent concentration) was given by intravenous infusion to determine whether it caused any pyrogenic or toxic reaction. Fifty-eight infusions were given in these 51 patients, a febrile reaction was noted, but the rise in temperature persisted only a few hours. In the last 24 patients in this group and in 10 patients with hemorrhage or shock an improved solution of isinglass was used, with febrile reaction in only 3 cases, and in one of the patients (with carcinoma of the rectosigmoid) the fever may have been due to another cause. In the other cases, the solution caused no reaction. In 3 cases of acute hemorrhage, the infusion of 800 cc. of a 4 to 6 per cent solution of isinglass resulted in a rise of blood pressure; 2 of these patients required subsequent blood transfusion as the rise in blood pressure was not sustained; the third patient required no further treatment. In shock following extensive burns (3 cases) and following compound fractures (2 cases) isinglass infusions were effective, but not in 2 patients with severe circulatory collapse. None of these patients showed any untoward reaction to the infusions.

COMMENT

*The quest for blood substitutes in intravenous therapy is still active and spirited. The two papers reviewed offer results obtained first in animal experimentation and second in clinical application. In both series the substance under trial was a solution of ichthyocolla (isinglass) which is in reality a form of gelatin.*

*The results obtained in animals prompted its use in 61 patients. Results obtained thus far do not justify its use where blood or plasma may be had within a reasonable time. Certainly its use would not be justified in circumstances where ordinarily good results could be expected from the use of any of the solutions commonly used intravenously. However, the authors testify that its use has caused no serious untoward reactions and they seem inclined to continue their investigations further.*

*T.M.B.*

# UROLOGY

## *Downward Suction Drainage After Prostatectomy*

F. C. HENDRICKSON and H. K. GUTH (*Journal of Urology*, 50:355, Sept. 1943) describe a method of suction drainage after suprapubic prostatectomy. After enucleation of the prostate, a Hendrickson-Foley transurethral bag is used to secure hemostasis, combined with instillation of hemostatic serum (thromboplastin for topical application) into the prostatic cavity through a small auxiliary tube in the catheter. The catheter is connected with an extension tube that projects out of the abdominal wound, and suction drainage is begun at once, employing a "Gomeo" pump. A free flow of air must be provided down through the wound and through the urethra to avoid negative pressure in the bladder. On the day following the operation, the hemostatic bag is removed and the suction catheter is drawn through the wound and out through the urethra. When suction is made on the urethral end of the catheter, the urine is drawn out of the bladder. The abdominal suction catheter is usually withdrawn after the fourth day, unless the patient is obese; a Hendrickson two-way suction catheter, with an auxiliary channel for air, is then introduced into the bladder: the bladder is kept free from urine by suction; the working of this catheter must receive "about as much attention as an ordinary urethral catheter." Comparison of results in 30 prostatectomies in which this method was used with 30 prostatectomies done previously by the senior author (F. C. H.) with suprapubic suction drainage and ordinary urethral catheter drainage shows that: With the old method, the average postoperative hospital stay was twenty-three days, the average maximum temperature was 101.9, the average duration of fever was eight days; there was one death. With the new method, the average postoperative hospital stay was shortened to fourteen days; the average maximum temperature was 101, and the average duration of fever 4.8 days; there were no deaths. No unfavor-

able results could be attributed to the method; only one wound infection occurred that prevented primary union, and this was in a diabetic; there was a "notable absence" of fistulas, hernias, stitch abscesses and other "indolent inflammatory conditions" that formerly occurred frequently in the suprapubic prostatectomy wound. The patients were "more comfortable" in the postoperative period than usual after suprapubic prostatectomy and several returned to manual labor within four weeks after operation. With this method, the authors have recently been doing fewer transurethral and more suprapubic prostatectomies.

COMMENT

*There is no question on the point that the more adequate the drainage of the bladder the more prompt and satisfactory the healing. It is all a matter of a bladder free from urine and at rest or one still irritated by infected urine and not at rest. I recall distinctly that the late Parker Syms in his perineal prostatectomy got his patients out of bed on the second or third day unless special conditions prevented. He, too, aimed at a bladder free of urine and resting. These authors are interesting in stating a tendency to do more suprapubic operations and fewer transurethral. The wave of enthusiasm for the latter seems to be running itself out on the sandy beach of common sense. In no branch of surgery can one method be the only method.* ***V.C.P.***

## *The Incidence of Urethral Stricture In Urological Conditions*

M. EMANUEL *(Medical Bulletin of the Veterans' Administration,* 20:187, Oct. 1943) reports a study of the incidence of urethral stricture in 500 veterans of the Spanish-American War and first World War, who had genito-urinary disorders. Their ages ranged from forty-one to seventy-eight years. A stricture was considered to be present if a No. 20 Fr. soft or stiff catheter could not be introduced easily without trauma; smaller soft catheters and smaller stiff olive-tip catheters were then tried; if the smallest catheter could not be introduced, Philips whips and filiforms were used to determine the size of the stricture. Anesthesia was not employed, but care was taken to eliminate spasm, which may simulate "a tight stricture." Of the 500 patients examined some degree of stricture of the urethra was found in 96, or approximately 1 in 5. Not all of these patients had "a thin, dribbling" urinary stream, suggestive of stricture. In 82 patients the stricture occurred at the bulbous and bulbomembranous levels; in 5, in the penile urethra; in 9 in the bulbomembranous and posterior urethra. In the latter group, all gave a history of either a previous prostatectomy, a transurethral resection, or irradiation therapy for cancer of the prostate or bladder; all these patients were over sixty years of age. The great majority of the patients with stricture in the anterior urethra were men under sixty years of age. Sixty-six of the patients with stricture, or almost 70 per cent, gave a definite history of gonorrhea. The stricture was impermeable in 6 cases; in another 12 cases only Philips whips or filiforms could be passed. Six patients gave a history of either a previous external urethrotomy for stricture or of a periurethral abscess. Three of the patients died in the hospital from "urosepsis" resulting from a severe degree of stricture. In this study it was found that if a No. 20 Fr. catheter (soft or stiff) can be passed into the bladder, a 24 Fr. metal sound will also pass "fairly easily," which, in turn, indicates that a No. 24 cystoscope can be used without difficulty.

COMMENT

*Strictures are either pathogenic and due to gonorrhea or traumatic and due chiefly to operations as artefacts. A 20 F. stricture should be classed as open because it does not influence the excretion of urine greatly nor the size of the stream. No stricture should be dilated by 4 numbers of the French scale unless the patient is in bed to stay there. A point which this author omits is the longitudinal extent of a stricture. Palpation along the shaft of a sound in place will show this. A long stricture is difficult to dilate because the sound forces it into a new extension. The infectiousness of a stricture is very important but is omitted. Some of the deaths surely arose in part from it. I well recall a patient in bed and moderately dilated not more than 2 numbers of the French scale. But in 24 hours he had arthritis of several joints. Subsequent examinations showed that proximal to the stricture the urethra had much gonococcal infection. One experience like that one is a lesson for life for most of us. It has been for me.* ***V.C.P.***

## *Sulfacetamide and Sulfadiazine Therapy in Urinary Tract Infection*

E. P. ALYEA and A. A. PARRISH, *(Southern Medical Journal,* 36:719, Nov.

1943) report the use of sulfacetamide and sulfadiazine in the treatment of uncomplicated urinary tract infections in 152 cases. In 51 cases, the patients were hospitalized and a complete urological study made, including retrograde ureteropyelograms; in 101 patients, the study was less complete and pyelograms were not obtained. Sulfacetamide was used for *B. coli* infections and sulfadiazine for *Staphylococcus aureus* infections. Previous experience with other sulfonamides in the treatment of urinary tract infections has shown that large doses of the drug are not necessary, and with smaller doses the danger of toxicity is much reduced. The dosage employed in this series was 3 gm. initial dose followed by 2 gm. daily for seven days. Adults were given at least 3000 cc. fluid daily. In the first group of 51 patients, 93.1 per cent of the patients with *B. coli* infection were cured, and 6.9 per cent improved; 90.9 per cent of the patients with *Staphylococcus aureus* infections were cured and 9.1 per cent improved. In the second group of 101 patients similar results were obtained. The criteria of cure were complete symptomatic relief and urine negative for both bacteria and pus cells. In the cases classed as improved, the symptoms were relieved, but the urine did not become completely negative. Symptomatic relief was often obtained in twenty-four to forty-eight hours. In comparing results in this series of cases with previous series treated with other sulfonamides the authors find that sulfadiazine and sulfacetamide give a higher percentage of cures in urinary tract infections with lower toxicity; they are more soluble in the acetylated form in the urine; and blood concentration of these drugs is more easily maintained with lower dosage. Patients under treatment with these drugs, as with all other sulfonamides, should be carefully watched for early signs of toxicity or urinary obstruction.

COMMENT

***Sulfa combinations are still multiplying although not so rapidly as 3 or 4 years ago. To my mind the most important point of this paper is the smaller quantity administered with higher percentages of cures, greater solubility in the urine and more constant blood concentration. We are now taking no chances of overwhelming the patient.*** ***V.C.P.***

# PEDIATRICS

## *Observations on Tetanus Immunization*

J. J. MILLER, JR., and J. B. HUMBER (*Journal of Pediatrics*, 23:516, November, 1943) report immunization against tetanus in two groups of children; in both groups, 80 per cent were infants six to twelve months of age, the remainder, older children one to six years of age. In both groups two injections of 1 cc. each of combined alum-precipitated diphtheria and tetanus toxoid were given at a minimum interval of eight weeks. In one group a third injection of 0.5 cc. of alum-precipitated tetanus toxoid was given sixteen weeks or more later; the other group did not receive this third injection. Antitoxin titrations two to four weeks after the last injection showed at least 0.1 unit of tetanus antitoxin in all children in both groups. Only one of 39 children who had been given three injections showed less than 1.0 unit of antitoxin at this time, while 20 of 46 children who had been given two injections showed less than 1.0 unit. Subsequent antitoxin titrations showed that the antitoxin titer fell more rapidly in the "two-injection" group than in the "three-injection" group, so that nine to fifteen months after the completion of the injections 9.5 per cent of children in the three-injection group showed titers below 0.1 unit, while 27.7 per cent of children in the two-injection group showed titers below 0.1 unit. Reinjections of toxoid were given some of the children in both groups twelve to fifteen months after the first course of injections. In some cases, 1cc. of fluid toxoid was employed for this reinjection, in others 0.5 cc. of alum-precipitated toxoid. It was found that the antitoxin level of the blood rose more rapidly after injection of fluid toxoid than after the injection of alum-precipitated toxoid. On the basis of these findings, the authors recommend for the prevention of tetanus in children, a basic course of three injections and annual re-

injection with alum-precipitated toxoid. If trauma involving danger of tetanus infection occurs in any child previously injected with tetanus toxoid (of either type), fluid toxoid is to be preferred to alum-precipitated toxoid for "a stimulating reinjection," because it acts more rapidly.

### *Late Effects of Lead Poisoning On Mental Development*

R. K. BYERS and E. E. LORD (*American Journal of Diseases of Children*, 66: 471, Nov. 1943) report that in the past ten years 128 children have been admitted to the Children's Hospital (Boston) with definite symptoms and signs of lead poisoning; the medical records of 71 of these children have recently been reviewed. Of these 71 children, 12 showed definite evidence of cerebral damage when discharged from the hospital; of the 59 children "discharged as cured," 20 have become of school age and have entered school. A review of the history of these children shows that at the time of their admission to the hospital (usually at one to three years of age), all but one had definite symptoms of lead poisoning, and in all roentgenograms showed bone changes indicative of lead poisoning; in all but one case, the history indicated the source of the lead ingested, and in 18 cases this was chewing paint from cribs, window sills or furniture; in one case the use of a lead nipple shield by a nursing mother was apparently the source of the lead poisoning. In 9 of these patients there was no evidence of involvement of the nervous system at the time of admission to the hospital; 3 showed peripheral neuritis, but no evidence of cerebral involvement; 8 showed "more or less conclusive evidence of encephalopathy," although the cerebral symptoms were not severe and cleared up before discharge from the hospital in every case. The follow-up records of these children indicated that their motor development was normal, but "with one definite and a second possible exception," none of these children succeeded in school. The intelligence quotient ratings varied from 67 to 109, averaging 90, but there was not the usual correlation between intelligence quotient and ability to learn in school in these children. Psychologic examination showed that sensorimotor defects were characteristic of this group. This study indicates that lead poisoning in infants and young children results in failure of normal development and growth of the cerebral cortex. Lead poisoning in children must be regarded as a serious disease, and since it results from "entirely man-made hazards," it should be preventable. The prevention of the use of lead-containing paint on all interior finishings, porch railings, furniture and "other objects which are in reach of children's teeth" is advocated.

### *Hepatic Damage Associated With Sulfonamide Therapy in Children*

M. L. MENTEN and M. A. ANDERSCH (*Annals of Internal Medicine*, 19:609-622, Oct. 1943) report that in 299 autopsies at the Children's Hospital in Pittsburgh, there were 38 instances of liver disease "associated with sulfonamide therapy," including toxic necrosis in 3 cases, toxic central necrosis in 9 cases, serious hepatitis and beginning toxic central necrosis in 26 patients. In 106 children under sulfonamide therapy Gray's colloidal gold test for liver function was done, periodically during the course of treatment in 73 cases, on one occasion in 33 cases. Positive colloidal gold reactions indicative of some degree of liver damage developed in 24 of the 73 cases in which repeated tests were made; the reaction was markedly positive in 11 and slightly positive in 13 cases. There was no correlation between the dosage of the drug used or the duration of the therapy and the degree of liver damage. Individual variations in the susceptibility of the liver to the toxin evidently are a factor in determining the degree of liver damage. The possible role of inadequate nutrition should also be considered. The authors state that "calling attention to the deleterious effect of sulfonamides is not intended to discredit or to discourage their use" but does indicate the need of the routine liver function tests during sulfonamide therapy in children.

### *Proteus Vulgaris and Proteus Morganii In Diarrheal Disease of Infants*

E. R. NETER and R. M. FARRAR (*American Journal of Digestive Diseases*, 10:34, Sept. 1943) report that in 12 cases

of enteritis, colitis or enterocolitis in infants under ten months of age, *B. proteus* was found in the stools in 3 cases; *B. morganii* type I in 7 cases, and both organisms in 2 cases. Three of the infants died, but in two, death was due to intercurrent disease. In the same period *B. proteus* and *B. morganii* were only rarely found in the feces of older children. No definite conclusions can be drawn from the available data as to the pathogenic significance of these organisms in the diarrheal diseases of infants; as, however, no other pathogenic enteric organisms were found in these infants, with one exception, it seems that these organisms were not present "merely as saprophytes."

# NEUROLOGY

### *Prognosis of Multiple Sclerosis*

H. D. McIntyre and Aurelia P. McIntyre (*ARCHIVES OF NEUROLOGY AND PSYCHIATRY*, 50:431, Oct. 1943) present "life charts" of 55 patients with multiple sclerosis since the onset of the disease. Three types of multiple sclerosis are distinguished, the acute, the remittent, and the chronic progressive. Prognosis as regards life is good in both the remittent and the chronic progressive type; the acute type is usually fatal within seven to eighteen months. In the remittent form prognosis is good for the individual attack; many patients with this form of the disease are able to lead active lives for ten or fifteen years. Apoplectic "episodes" occurred in 12 of the 50 patients with the remittent type of the disease. The incidence of such attacks might be higher if they were "sought for diligently" in the history of all patients. Twenty-seven patients had optic neuritis at some stage of the disease; it was not an initial symptom in all these cases. Both optic nerves were affected at the same time in only one patient. The prognosis for optic neuritis in multiple sclerosis is relatively good; only one of the patients in this series became blind. Forty of these patients were treated by various methods, including administration of vitamin B, liver extract and quinine (25 patients); hyperpyrexia (8 patients). In comparison with the 15 patients not treated, the course of the disease was not altered by any method of treatment.

### *Post-Traumatic Psychosis in the Aged; Treatment with Sex Hormones*

H. D. Cogswell and S. C. Davis (*AMERICAN JOURNAL OF SURGERY*, 62:9, Oct. 1943) report 3 cases in which a psychosis developed following an injury (not a head injury) that confined the patient to bed; these patients were from sixty-five to seventy-five years of age; 2 were women and one a man. The women patients were given theelin and the man testosterone propionate by injection; the dosage of theelin was 5,000 units, given daily in one case; in the other 10,000 units were given on the first day, 2,000 to 5,000 units every three days until discharge from the hospital; the dosage of testosterone was 25 mg. every three days. In all these cases, the patient's mental condition cleared up rapidly, and all recovered. Sex hormones were given in these cases because similar mental symptoms did not develop in younger persons suffering equally severe injuries, and it was thought that sex hormone deficiency characteristic of older persons might be a factor. The authors are of the opinion that vasospasm initiated by the injury is a factor in producing ischemia of the brain, especially in senile brains in which the walls of the blood vessels are thickened and sclerotic. The sex hormones apparently have a favorable action by "maintaining vasomotor stability." The authors urge that sex hormones be used in similar cases and the results reported.

### *Metabolic Studies on Epileptic Patients Receiving Azosulfamide and Phenobarbital*

M. E. Cohen and associates (*ARCHIVES OF NEUROLOGY AND PSYCHIATRY*, 50:149, Aug. 1943) report a study of the metabolism of 2 patients with epilepsy during a control period, and during periods in which azosulfamide, phenobarbital, and ammonium chloride were each given. The administration of azosulfamide resulted in a decrease in the carbon dioxide content and the carbon dioxide tension of the serum accompanying

the anticonvulsant effect of the drug. Ammonium chloride produced a similar type of "acidosis" but had no anticonvulsant effect. Phenobarbital, which had an anticonvulsant effect, produced no acidosis. Administration of both azosulfamide and phenobarbital resulted in a positive potassium balance associated with their anticonvulsant effect; ammonium chloride did not affect the potassium balance. These findings indicate that "acidosis" is not the "crucial factor" in anti-convulsant action; but suggest that storage of potassium may be such a factor. It is known that potassium plays a role in nerve function, but the mechanism of its action is not clear. In one of the cases reported, it was noted that as long as the urinary excretion of potassium was low after a period of azosulfamide administration, the patient had no seizures, but a rise in the potassium content of the urine was accompanied by a return of seizures.

### *Tuberous Sclerosis*

A. T. Ross and W. W. Dickerson (*ARCHIVES OF NEUROLOGY AND PSYCHIATRY*, 50:233, Sept. 1943) report 25 cases of tuberous sclerosis of the brain, in 3 of which autopsy studies had been made. Tuberous sclerosis is considered to be less prevalent in the United States than in Europe, where its incidence in institutions for epileptics and the feeble-minded is approximately 0.6 per cent; in similar institutions in the United States the incidence of tuberous sclerosis has been reported as varying from 0.1 to 0.5 per cent. In the 25 cases reported by the authors, 22 were at the Caro State Hospital for Epileptics and 3 at the Indiana University Medical Center. The 22 at the State Hospital represented 0.56 per cent of newly admitted patients. The youngest patient was three years of age; the oldest forty-one years; 18 patients were under fifteen years of age. Every patient in the series had had convulsive seizures of the grand mal type at the time of admission; all showed the characteristic lesions of adenoma sebaceum on the face at the time of the first examination. In 13 patients the age at the time of the appearance of lesions of adenoma sebaceum was not known; the appearance of the facial lesions definitely antedated the occurrence of the convulsions in only one of the remaining 12 patients. In addition to adenoma sebaceum, 11 showed brown-pigmented café au lait spots, 3 showed firm fibrotic nodules of the scalp, 3 other patients showed similar nodules at other sites. Ophthalmoscopic examination showed the eye grounds to be normal in 16 cases; 6 patients had retinal tumors, bilateral in one instance. Four patients developed palpable masses in the kidney region, bilateral in 3 cases. Roentgenograms of the skull showed small, discrete areas of calcification throughout the brain substance in 20 cases; 12 showed round or oval "islands" of increased density in or immediately below the calvarium. Pneumo-encephalograms were obtained in 21 patients; generalized atrophy or hypoplasia of the brain was demonstrated in 16 patients; intraventricular tumors, "the so-called candle gutterings", were demonstrated in 7 patients. Many of these patients were "helpless idiots." The authors are of the opinion that tuberous sclerosis is not infrequent in this country as has been believed. The hereditary factors in these cases were "no more outstanding" than in institutional epileptic patients without tuberous sclerosis; the authors conclude from their study that tuberous sclerosis is "a developmental tissue dysplasia."

### *Effect of Certain Sulfonamides on the Electrical Activity of the Cerebral Cortex*

Charles Brenner and S. Cohen (*JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*, 123:948, Dec. 11, 1943) report a study of the effect of local applications of sulfonamide drugs to the cerebral cortex, since these drugs are now employed in cranial injuries in which they may come into direct contact with the cortex. It was found that neither sulfanilamide nor its sodium salt in concentrations up to 20 per cent produced any significant change in the electrical activity of the cortex. Solutions of the sodium salts of sulfathiazole, sulfapyridine and sulfadiazine produced definite changes in the electro-encephalogram which appeared as high voltage spike discharges, that are interpreted as indicating "a convulsive state of the cortex," as they are similar to the discharges produced by local application of strychnine and of those appearing in the encephalograms of epileptics. In one experimental animal a focal seizure followed the application of sulfathiazole

powder. Sulfapyridine powder produced some increase in electrical activity of the cortex, but of a lesser degree than the sodium salt solution. Sulfadiazine powder produced no significant change. The authors conclude that sulfanilamide is the safest of the sulfonamide drugs tested for intracranial application, when there is "a possibility of contact with the cerebral cortex." If another sulfonamide drug is to be employed the use of a relatively insoluble form appears to minimize the danger of its possible convulsant action.

### *Combined Convulsive Therapy and Psychotherapy of the Neuroses*

J. D. Moriarty and A. A. Weil (*ARCHIVES OF NEUROLOGY AND PSYCHIATRY*, 50:685, Dec. 1943) find, in a review of literature on convulsive therapy, that this type of therapy has been used chiefly in the psychoses but that fourteen authors have reported results in all types of neuroses, although few of them have dealt exclusively with neurotic patients, but were concerned primarily with psychotic patients. These fourteen authors have reported a total of 130 neurotic patients treated by convulsive therapy, with cure or remission obtained in 28 per cent, and improvement in 64 per cent. Most of the authors refer also to the use of psychotherapy in these cases, but do not emphasize its use. Some neurologists have objected to convulsive therapy as "too drastic" for the neuroses; this may be true of metrazol shock therapy, but electric shock therapy can be administered with "virtually no major risk and few minor ones," so that its use in the neuroses is considered by the authors to be entirely justifiable. They have employed electric shock therapy and psychotherapy in the treatment of 20 patients with various neuroses at the New Hampshire State Hospital. As a rule the procedure was first, analytic psychotherapy, followed by four to six electric shock treatments, and then by "efforts at reeducation." All of the 20 patients have been discharged from the hospital; 10 patients, or 50 per cent, were considered to be in remission; 9 were definitely improved, and one showed "questionable" improvement. A follow-up study shows that most of these patients have made "satisfactory adjustment" since leaving the hospital. The number of shock treatments required in the neuroses, the authors have found, is less than in the psychoses, and the hospitalization period for neurotic patients is definitely shortened. Of 79 neurotic patients treated at the hospital by "orthodox" methods including psychotherapy, only 7 per ecnt were considered to be in remission when discharged; 71 per cent improved, and 22 per cent not improved.

# CORRESPONDENCE

### *Forum Voices*

*To the Editor of the* MEDICAL TIMES:

Please remove my name from your mailing list.

A most pathetic individual is a physician, who has sold his scientific mind to a clergyman, ranting against birth control. Such a physician is comparable to one who writes for the anti-vivisection lunatics.

I do not dispute your right to print and circulate all the "Planned Falsehoods" you care to against "Planned Parenthood," but I just don't want to be annoyed.

EMOR L. CARTWRIGHT, M.D.
Fort Wayne, Ind.

# *Medical* BOOK NEWS

*Edited by*

**ALFRED E. SHIPLEY, M.D., Dr. P.H.**

All books for review and communications concerning Book News should be addressed to the Editors of this department, 1313 Bedford Avenue, Brooklyn 16, N. Y.

### *For the Allergic Patient*

***Primer of Allergy.*** By Warren T. Vaughan, M.D. 2nd Edition. St. Louis, C. V. Mosby Company, [c. 1943]. 176 pages, illustrated. 12mo. Cloth, $1.75.

IN a rather light, yet lucid vein, the author introduces to the patient the subject of allergy and points out what he can and cannot expect from allergic management. By means of numerous interesting examples and analogies he explains the mechanism by which allergy produces such a variety of manifestations and the theoretical background for methods of treatment. The need for willing and intelligent cooperation by the patient to help the physician uncover offending foods and inhalants is particularly stressed. Finally many pages are devoted to routine and specific instructions, food information, diaries, etc. This volume is certainly broadly educational for the individual afflicted with an allergic ailment.

MAX GROLNICK

### *Mediastinal Infections*

***Acute Infections of the Mediastinum.*** By Harold Neuhof, M.D., & Edward E. Jemerin, M.D. Baltimore, The Williams & Wilkins Company, [c. 1943]. 407 pages, illustrated. 8vo. Cloth, $6.00.

THE authors have painstakingly gathered a series of 100 cases of various types of acute mediastinal pathology.

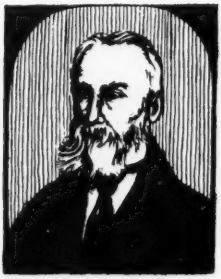
The series includes inflammatory processes secondary to trauma, infection of the respiratory system and pleura. Each case is well illustrated by a series of x-ray picturesand also includes a survey of all the related clinical aspects.

In addition, the treatment including the various special operative approaches is clearly set forth.

It is rare for one to find such a large number of cases of varying types included in a single volume.

The book should be well received by both internists and surgeons.

RALPH F. HARLOE



JOHN HUGHLINGS JACKSON
1834 ~ 1911

### *Classical Quotations*

● **Blindness not uncommonly occurs in cases of tumour of the brain. Sometimes the optic nerves are compressed. . . . The blindness in cases of tumour of the brain, not directly affecting the optic tracts, may be produced by the general pressure, or by reflex irritation, or because, in some way, the tumour interferes mechanically with the blood-vessels, so that parts at a distance do not receive their due supply of blood. It may be that the nutrition of the optic tract is interfered with because the nerves supplying its blood vessels arise or pass in the parts injured.**

**John Hughlings Jackson**
**Observations on Defects of Sight in Brain Disease. *Royal London Ophthalmic Hospital Reports* 4:10-19, 1863.**

### *Physiology in Treatment*

***Physiological Principles in Treatment.*** By Sir Walter Langdon-Brown and Reginald Hilton. 8th Edition. Baltimore, The Williams & Wilkins Company, [c. 1943]. 323 pages. 8vo. Cloth $3.50.

THIS is the eighth edition of this book and it would seem that a more thorough revision with inclusion of the newest accepted ideas should have been included. Most of the chapters are incomplete, more particularly the one on Vitamins.

In the chapter on Diabetes the modern use of newer insulins is entirely omitted. One can scarcely recommend this book as a worthwhile addition to any medical library. Many more complete and more modern books on this subject are available.

BENJAMIN M. BERNSTEIN

### *Industrial Medicine in Wartime*

***Manual of Industrial Hygiene and Medical Service in War Industries.*** Issued under the Auspices of the Committee on Industrial Medicine of the Division of Medical Sciences of the National Research Council. By William M. Gafafer, D.Sc. (Editor). Philadelphia, W. B. Saunders Company, [c. 1943]. 509 pages, 8vo. Cloth, $3.00.

THIS volume consists of three parts, Organization and Operation of Facilities, Prevention and Control of Disease in Industry, and, The Man Power Problem. The twenty-four chapters cover the subjects of medicine, dentistry, engineering, education and compensation as related to industry. The contributors are sixteen members of the U. S. Public Health Service, who present the subjects in an interesting manner.

The work contains information of value to the physician and layman, and has 508 pages with a concise index. It should prove useful to those interested in industrial medicine, safety and hygiene.

C. T. GRAHAM-ROGERS

### *Trauma of Nervous System*

***Injuries of the Skull, Brain and Spinal Cord.*** Edited by Samuel Brock, M.D. 2nd Edition. Baltimore. The Williams & Wilkins Company, [c. 1943]. 616 pages, illustrated. 8vo. Cloth, $7.00.

THE second edition of this splendid volume on trauma, as it affects the nervous system, should be read by every physician. Much of the material is contributed by qualified physicians with extensive experience in the subjects discussed. The book is particularly timely now, in view of the interest in war injuries and will be of inestimable value in the management of neuropsychiatric problems that will be encountered in the post war period.

A. M. RABINER

### *Rhinehart's Roentgenology*

***Roentgenographic Technique.*** By Darmon Artelle Rhinehart, M.D. Philadelphia, Lea & Febiger, [c. 1943]. 3rd edition. 471 pages, illustrated. 8vo. Cloth, $5.50.

THE third edition of this book bespeaks its popular demand. It has been slightly enlarged and somewhat better illustrated, but perhaps might to good advantage have been more so, for one of its main objects is to familiarize the technician and practitioner doing radiography with positioning of the patient, and what is to be found on the film with each position and angle of projection employed.

The book is basically fundamental and concise. It is designed essentially for the physician who would employ the ray for his particular needs rather than the experienced radiologist.

The technician can develop a good general technic by diligent application of its text, but special technics, so often required by specialists in various fields, are rather sparsely described. This is, perhaps, a particular advantage in that it is not confusing to the average doctor.

A definite niche should be assigned to this book in the library of the general practitioner and technician.

MILTON G. WASCH

### *Neurotherapy*

***The Therapy of the Neuroses and Psychoses.*** By Samuel Henry Kraines, M.D. 2nd Edition, Thoroughly Revised. Philadelphia, Lea & Febiger, [c. 1943]. 567 pages. 8vo. Cloth, $5.50.

THE wide popularity of this book is attested by the publication of this second edition within a two-year period. Without materially increasing its size, space has been found for new material relative to schizophrenia, shock therapies, organic psychoses and neuropsychiatric states induced by the war.

The medical profession is greatly indebted to Dr. Kraines for bringing up to date his most readable and practical book. The chapter pertaining to war psychiatry is most timely and deserves critical reading not only by those in the armed services but also by physicians in civilian life.

FREDERICK L. PATRY

### *Bad News for the Euthanasia Cult*

***Geriatric Medicine. Diagnosis and Management of Disease in the Aging and in the Aged.*** Edited by Edward J. Stieglitz, M.D. Philadelphia, W. B. Saunders Company, [c. 1943]. 887 pages, illustrated. 8vo. Cloth, $10.00.

THIS is a treatise on geriatric medicine written by fifty-four authors, one of whom, Dr. Stieglitz, is its editor. In a preface to the work he remarks that "Geriatrics is not sufficiently demarcated to be classed as a specialty. Rather is it a point of view, an attitude of mind, which takes cognizance of the changes consequent to the process of aging. To age is to change. These changes affect all aspects of medical practice." Hence it has been necessary to draft fifty-four specialists of note to cover the vast field in part.

This fine work will help to prepare the medical profession for the day, almost arrived, when one-third of the total population of this country will be over fifty

years of age (and most of the problems of senescence, this book tells us, begin at forty).

ARTHUR C. JACOBSON

### *Brief Text on Syphilis*

***Essentials of Syphilology.*** By Rudolph H. Kampmeier, M.D. Philadelphia, J. B. Lippincott Company, [c. 1943]. 518 pages. 12mo. Cloth, $5.00.

ACCORDING to the preface, this book is intended to supply for the general practitioner, health officer and undergraduate student, a practical exposition of syphilis as a systemic disease. With these limitations in mind, this book admirably fulfills this field. In fact, the subject has been nearly as completely covered as is done by some of the larger and more extensive texts.

The essentials have been so well selected that they cover practically everything that is necessary for adequate understanding and treatment of syphilis, even in its more obscure and complicated phases.

Altogether, it is a worthwhile book which adequately covers its subject.

J. C. GRAHAM

### *Special Anesthesia*

***Endotracheal Anaesthesia.*** By Noel A. Gillespie, M. A. Madison, The University of Wisconsin Press, [c. 1941]. 187 pages, illustrated. 8vo. Cloth, $4.00.

THIS volume is devoted to a method of anaesthesia that is gaining increased popularity as the safety and advantages in its use are more widely recognized. Every anaesthetist must of necessity acquire the art of administering endotracheal anaesthesia easily and safely, and this volume will go far in explaining the procedure. From a practical standpoint, the chapter on intubation is perhaps the most important. The author notes that the description of intubation sounds absurdly easy, and explains the many obstacles that it may be necessary to overcome, especially for the beginner. The author describes the unfavorable results that may occasionally arise in endotracheal work and cautions that with proper technique such sequelae will more rarely occur. As in any endoscopy, the avoidance of trauma, by the use of skill instead of force, is of paramount importance. The volume will assist a beginner in this work to visualize many of his problems and how to overcome them, but no volume will ever take the place of constant practice in acquiring the proper technique, and the author stresses this fact. The book should be read with profit, not only by the anaesthetist, but by the surgeon as well.

ROBERT L. MOORHEAD

### *Nautical First Aid*

***Shipboard Medical Practice. A Handbook of Ship Sanitation and Emergency Medical Aid at Sea.*** By W. L. Wheeler, Jr., M.D. New York, Cornell Maritime Press, [c. 1943]. 114 pages, illustrated. 12mo. Cloth, $1.00.

DR. WHEELER is Medical Director of the Grace Line, Inc. His booklet of about 100 pages is written to acquaint the lay members of a crew at sea with the essentials of first aid treatment and general medical care. It makes no pretense of being a substitute for professional care. There is included a sample supply list of medical and surgical necessities, a chapter on proper radio messages for medical help, a glossary, index, and sample report cards—all brief, instructive, and readable.

JOSEPH RAPHAEL

### *Short Text on the Heart*

***A Manual of Cardiology.*** By Thomas J. Dry. Philadelphia, W. B. Saunders Company, [c. 1943]. 310 pages, illustrated. 12mo. Cloth, $3.00.

THIS small volume gives a synopsis of cardiology and, as such, appears to serve its purpose well. As with all books of this type, condensation takes away much that is important and there is little space for discussion of the various problems involved. However, as the objective seems to be to present mainly facts, these features have been omitted by design and those who desire more detailed information can refer to the larger textbooks. The book is excellently produced and will probably serve a useful purpose for those who have not the time to study more detailed treatises.

J. HAMILTON CRAWFORD

### *Outline of Surgical Care*

***Surgical Care. A Handbook of Pre- and Post-Operative Treatment.*** By R. W. Raven, Baltimore, The Williams & Wilkins Company, [c. 1942]. 271 pages, illustrated. 12mo.

THE tremendously rapid advancement that is being made in the treatment and prevention of infections, makes it difficult for any textbook to keep abreast with our current medical periodicals. This is also true about the treatment of shock and burns. Therefore, these chapters need monthly revision.

The chapter on tidal drainage of the bladder is especially useful during these traumatic times.

This handbook is concise and well written and is especially recommended to surgical internes. The specialties are well covered for a book of this type.

W. G. FLICKINGER

### *The Pleuro-Subpleural Zone*

***The Pleuro-Subpleural Zone.*** Its Clinical & Experimental Investigation and its Practical Importance in Chest Pathology. By J. Skládal. Cambridge, University Press, [c. 1942]. 103 pages, illustrated. 8vo. Cloth, $2.75.

THIS is a difficult book upon which to pass judgment;—to give an honest objective opinion. The author, a Czech, has apparently made his own translation of the original treatise and in doing so has not been too fortunate in his phraseology and terminology. The text is replete with terms for which there are no known counterparts in English scientific literature, all of which makes for a definite lack of clarity and understanding. His main thesis is that by means of sudden expiration one may note during auscultation a reduplication of the expiratory murmur. He apparently has proved this satisfactorily by means of oscillography and aerotachography. He assigns to this phenomena notable diagnostic and prognostic importance; an assumption which may be very true but surely requiring confirmation by others before it can be accepted. Time alone can answer that question. We sincerely hope that there is something to his contentions because he obviously has applied himself most diligently over the past ten years to the subject and is deserving of well-earned recognition if events prove to be right all that he claims.

FOSTER MURRAY

### *For the Aviator*

***Fit To Fly.*** A Medical Handbook for Fliers. By Malcolm C. Grow, M.D. and Harry G. Armstrong, M.D. New York, D. Appleton-Century Company, [c. 1941]. 387 pages, illustrated. 8vo. Cloth, $2.50.

THIS book is written by 2 well known authors in the field of aviation medicine, and they have written it for those contemplating flying, for the new pilot and for the veteran who has to keep physically fit. They have given the reader a clear picture of the importance of maintaining health, whether he be an amateur, professional, or service flyer. Among the subjects discussed are the procedures of various examinations, diseases of the heart and circulatory system, disqualifying defects, care of the eyes, examination of the nervous system, altitude sickness, oxygen, fatigue in flight, aviators' diet, mental hygiene, protective devices, sensory illusions during flight, aviation accidents and first aid and tropical diseases. The book is recommended to both those contemplating flying and the veteran pilot.

A. JABLONS

## BOOKS RECEIVED *for review are promptly acknowledged in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases, review notes will be promptly published shortly after acknowledgment of receipt has been made in this column.*

***Blood Supply of the Visual Pathway.*** A Monograpu by Calvin M. Kershner, M.D. Boston, Meador Publishing Company, [c. 1943]. 160 pages, illustrated. 12mo. Cloth, $3.00.

***Symptoms and Signs in Clinical Medicine. An Introduction to Medical Diagnosis.*** By E. Noble Chamberlain, M.D. 3rd Edition. Baltimore, The Williams and Wilkins Company, [c. 1943]. 456 pages, illustrated. 8vo. Cloth, $8.00.

***Elements of Medical Mycology.*** By Jacob Hyams Swartz, M.D. New York, Grune & Stratton, [c. 1943]. 179 pages, illustrated. 8vo. Cloth, $4.50.

***The Dysenteric Disorders. The Diagnosis and Treatment of Dysentery, Sprue, Colitis and Other Diarrhoeas in General Practice.*** By Sir Philip Manson-Bahr, M.D. 2nd Edition. With an Appendix by W. John Muggleton. Baltimore, The Williams and Wilkins Company, [c. 1943]. 629 pages, illustrated. including 9 color plates. 8vo. Cloth, $10.00.

***A Synopsis of Surgical Anatomy.*** By Alexander Lee McGregor, M.Ch. 5th Edition. Baltimore, The Williams and Wilkins Company, [c. 1943]. 710 pages, illustrated. 12mo. Cloth, $6.50.

***Psychological Medicine. A Short Introduction to Psychiatry.*** With an Appendix WAR-TIME PSYCHIATRY. By Desmond Curran, M. B. and Eric Guttmann, M.D. Baltimore, The Williams and Wilkins Company, [c. 1943]. 188 pages, illustrated. 8vo. Cloth, $3.50.

***The Foot.*** By Norman C. Lake, M.D., M.S. 3rd Edition. Baltimore, The Williams and Wilkins Company, [c. 1943]. 432 pages, illustrated. 8vo. Cloth, $5.00.

***Pathological Histology.*** By Robertson F. Oglivie, M.D. 2nd Edition. Baltimore, The Williams and Wilkins Company, [c. 1943]. 411 pages, illustrated with 235 photomicrographs in color. 8vo. Cloth, $9.00.

***The Chemical Front.*** By Williams Haynes. New York, Alfred A. Knopf, [c. 1943]. 264 pages, illustrated. 8vo. Cloth, $3.00.

***Pain.*** [Res. Publ. Ass. Nerv. Ment. Dis., Vol. 23.] Ed. Bd., Harold G. Wolff, M.D., Chairman. Baltimore, The Williams and Wilkins Company, [c. 1943]. 468 pages, illustrated. 8vo. Cloth, $7.50.

***Backache and Sciatic Neuritis. Back Injuries—Deformities—Diseases—Disabilities. With Notes on the Pelvis, Neck, and Brachial Neuritis.*** By Philip Lewin, M.D. Philadelphia, Lea & Febiger, [c. 1943]. 745 pages, illustrated. 8vo. Cloth, $10.00.

***Psychosomatic Diagnosis.*** By Flanders Dunbar, M.D., Med. Sc.D. New York, Paul B. Hoeber, Inc., [c. 1943]. 741 pages. 8vo. Cloth, $7.50.

***Traumatologia De Guerra.*** By Dr. Terencio Gioia. Buenos Aires, A. Lopez, [c. 1943]. 174 pages, illustrated. 8vo.

***Strophanthin. Clinical and Experimental Experiences of the Past 25 Years.*** By Bruno Kisch, M.D. New York, Brooklyn Medical Press, Inc., [c. 1944]. 158 pages, illustrated. 8vo. Cloth, $4.00.

***Release from Nervous Tension.*** By David Harold Fink, M.D. New York, Simon and Schuster, [c. 1943]. 232 pages. 8vo. Cloth, $2.00.

***Surgical Errors and Safeguards.*** By Max Thorek, M.D., LL.D. 4th Edition, revised. Philadelphia, J. B. Lippincott Company, [c. 1943]. 1,085 pages, illustrated. 4to. Cloth, $15.00.

## EDITORIALS

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Association. A strong leadership would clarify and vitalize plans for preventive medicine, *state* care of the indigent, and a nationalization of pre-payment systems, not to speak of counsel to be offered toward the formulation of legislative policies and action.

Especially in need of clarification, according to the *Journal*, is the economics of medical care, as illustrated by the actual reasons why medical care has not been better in some areas of the nation: poor economic conditions, low level of income, lack of education, and a disinclination to seek or accept good medical care.

On the whole, this presentation of ideas comporting with the realities of the present situation is a statesmanlike one.

### *Preposterous Medical Fact Number One*

Someone once suggested a List of Preposterous Facts. They were to be facts of general interest. The list, we recall, was to begin with the preposterous fact that we have, as yet, no constitutional guaranty of equal rights for men and women.

If we were to make up a list of Preposterous Medical Facts, with what might we start? For ourselves, we should suggest as Number One on this list:

Left-wing political medicine's threat to the many physicians now in the armed forces who are in no position to resist the menace to their future civilian practice.

### *Whither?*

Delinquent doctors seem to be competing with delinquent children for first place.

The recent disclosures as to the shortcomings of physicians in the field of workmen's compensation, as abortionists, and as parties in the secret mulcting of patients through commissions, kickbacks and split fees in a very wide range of operations can be understood if we reflect that the profession is a cross section of the people and that moral principles are now in a state of chaos for reasons which it is perhaps best not to discuss at this time.

This fact of chaos is found by Curphey (see his article in this issue) to account even for some of the unsatisfactory relations between laboratory and clinical medicine.

In the MEDICAL TIMES of March, 1943 (page 73), attention was called to the fact that medical men in the mass have always been conditioned by their environment. Thus in colonial days in New England "the physician gave countenance to the idea of witchcraft in the public mind . . . for he too lived under the influence of the supernatural and the superstitious . . . The New England practitioner, therefore, formed an integral part of his community, adapting himself socially and professionally to his environment."

Abstractly, it is the custom to assume that the general moral level of the profession is higher than that of the people at large. All we can say is that it ought to be.

Is the present age becoming more and more paganistic, materialistic and cynical, or is the world becoming better? Upon such questions would seem to depend the future moral integrity of the medical profession itself.